



DESCRIPTIONS OF THE SOIL GROUPS

- 111** Silty clays to silty clay loams with (a) permeabilities less than 1.0 inch per hour, (b) nearly level to very gentle slopes (maximum slopes 1 to 3 percent), and (c) depths to seasonal high water table less than 6 feet. These soils are predominantly on larger flood plains and are represented by the Alhambra-Haynie and Lutton-Forney associations.
- 212** Silty clay loams to silt loams with (a) permeabilities from 1.0 to 2.0 inches per hour, (b) nearly level to very gentle slopes (maximum slopes 1 to 3 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are present on well-drained terraces and uplands in the central part of the State and are represented by the Hord-Hall and Holdrege-Hall associations.
- 222** Silty clay loams to silt loams with (a) permeabilities from 1.0 to 2.0 inches per hour, (b) nearly level to strong slopes (maximum slopes 3 to 10 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are widely distributed throughout the State and are represented by the Holdrege and Keith-Alliance-Rosebud associations.
- 232** Silty clay loams to loams with (a) permeabilities from 1.0 to 2.0 inches per hour, (b) very gentle to moderately steep slopes (maximum slopes 10 to 20 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are widely distributed and significant within the State and are represented by the Holdrege-Coly-Uly and Ulysses-Keith-Coby associations.
- 242** Silty clay loams to loams with (a) permeabilities from 1.0 to 2.0 inches per hour, (b) gentle to steep slopes (maximum slopes 20 to 30 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are widely distributed within the State and are represented by the Coly-Uly-Holdrege and Monona-Ida associations.
- 322** Silt loams to fine sandy loams with (a) permeabilities from 2.0 to 5.0 inches per hour, (b) nearly level to strong slopes (maximum slopes 3 to 10 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are common in transitional areas between the sandhills and silt uplands and are represented by the Moody-Bazile-Trent and Jayem-Haxton-Rosebud associations.
- 332** Silt loams to fine sandy loams with (a) permeabilities from 2.0 to 5.0 inches per hour, (b) nearly level to moderately steep slopes (maximum slopes 10 to 20 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are common in transitional areas between the sandhills and silt uplands and are represented by the Kenesaw-Hersh and Ogjala-Jayem associations.
- 352** Silt loams to sandstone with (a) permeabilities from 1.5 to 5.0 inches per hour, (b) gentle to very steep slopes (maximum slopes that exceed 30 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are principally found in the Panhandle and southwest parts of the State in highly eroded uplands. They exhibit very shallow soil development on a sandstone surface and are represented by the Canyon-Bridget-rock outcrop and Canyon-Rosebud-rock outcrop associations.
- 411** Loams to fine sands with (a) permeabilities from 5.0 to 10.0 inches per hour, (b) nearly level to very gentle slopes (maximum slopes 1 to 3 percent), and (c) depths to seasonal high water table less than 6 feet. These soils are on flood plains and are represented by the Las-Las Animas-McCook and Lawet-Elsmere-Gannett associations.
- 412** Fine sandy loams to fine sands with (a) permeabilities from 5.0 to 10.0 inches per hour, (b) nearly level to very gentle slopes (maximum slopes 1 to 3 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are on flood plains, differing from the 411 soils only in the depths to water table, and are represented by the Cass-Inavale and Glenberg-Bankard-Yockey associations.
- 422** Fine sandy loams to fine sands with (a) permeabilities from 5.0 to 10 inches per hour, (b) nearly level to strong slopes (maximum slopes 3 to 10 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils occur on uplands, terraces, and footslopes in transitional areas between sandy and silty soils and are represented by the Bazile-Pake-Thurman and Jayem-Sarben-Valent associations.
- 452** Fine sandy loams to fine sands with (a) permeabilities from 5.0 to 10.0 inches per hour, (b) gentle to very steep slopes (maximum slopes exceeding 30 percent), and (c) depths to seasonal high water table exceeding 6 feet. These are principally shallow residual soils formed in sandstone on highly eroded uplands in the northern Panhandle of the State and are represented by the Busher-Sarben-Tassel and Tassel-Busher associations.
- 511** Fine sandy loams to fine sands with (a) permeabilities exceeding 10.0 inches per hour, (b) nearly level to very gentle slopes (maximum slopes 1 to 3 percent), and (c) shallow water tables with depths to seasonal high water table less than 6 feet. These soils are on flood plains and in Sand Hills valleys and are represented by the Gothenburg-Platte and Loup-Elsmere-Dunday associations.
- 512** Loamy fine sands to fine sands with (a) permeabilities exceeding 10.0 inches per hour, (b) nearly level to very steep slopes (maximum slopes 20 to 30 percent), and (c) substantial areas having depths to seasonal high water table less than 6 feet. This hydrologic soil group is rather unique in that steeply sloping dunes alternate with subirrigated valleys with shallow water tables and seasonal ponding. The Valentine-Els and Valentine-Elsmere-Gannett associations represent these soils.
- 542** Loamy fine sands to fine sands with (a) permeabilities exceeding 10.0 inches per hour, (b) nearly level to very steep slopes (maximum slopes 20 to 30 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are principally found in the Sand Hills uplands and are represented by the Valentine-Tassel and Valentine-Simeon associations.
- 552** Loamy fine sands to fine sands with (a) permeabilities exceeding 10.0 inches per hour, (b) gentle to very steep slopes (maximum slopes exceeding 30 percent), and (c) depths to seasonal high water table exceeding 6 feet. These soils are the most prevalent upland soils of the Sand Hills and are represented by the Valentine and Valentine, hilly and rolling associations.

HYDROLOGIC CHARACTERISTICS OF THE SOIL GROUPS

Soil group	Average permeability of 60-inch soil profile (inches per hour)	Average permeability of loam permeable horizon (inches per hour)	Average available water capacity (inches per inch)	Average maximum soil slope (percent)	Depth to seasonal high water table (feet)
111	0.80	0.44	.16	2	<6
212	1.23	1.14	.20	3	>6
222	1.23	1.09	.20	5	>6
232	1.28	1.21	.19	15	>6
242	1.37	1.31	.20	23	>6
322	2.91	2.02	.16	3	>6
332	3.29	2.93	.18	12	>6
352	1.85	1.17	.18	44	>6
411	8.42	1.52	.13	2	<6
412	7.52	3.05	.12	2	>6
422	6.85	4.15	.13	8	>6
452	7.54	4.00	.15	36	>6
511	12.90	3.99	.09	3	<6
541	12.67	11.38	.08	27	<6
542	12.20	7.57	.08	27	>6
552	12.38	10.67	.07	50	>6

HYDROLOGIC SOIL GROUPS IN THE  
SCOTTSBLUFF QUADRANGLE, NEBRASKA